

WHAT IS CLAIMED IS:

1. A printer having a supply spool adapted to allow the printer to sense type of media on the spool, the printer comprising:

(a) a transceiver for transmitting a first electromagnetic field and for sensing a second electromagnetic field;

(b) a transponder and memory carried by the spool and spaced-apart from said transceiver and having data stored therein indicative of the type of the media, said transponder capable of receiving the first electromagnetic field to power said transponder, so that said transponder generates the second electromagnetic field in response to the first electromagnetic field received thereby, the second electromagnetic field being characteristic of the data stored in said memory;

(c) a conducting wire coupling said transceiver to a microprocessor included in the printer and adapted to process the data in the second electromagnetic field in order to control operation of the printer; and

(d) wherein said transponder is disposed in an end portion of the spool.

2. A printer including a plurality of supply spools and adapted to allow the printer to sense type of a media on a particular one of the spools, comprising:

(a) a shaft having a supply of the media wound thereabout;

(b) a transceiver unit that is positioned in proximity to said shaft for transmitting a first electromagnetic field and for sensing a second electromagnetic field;

(c) a transponder integrally connected to said shaft and having data stored therein indicative of the type of the media, said transponder capable of receiving the first electromagnetic field to power said transponder, so that said transponder generates the second electromagnetic field in response to the first electromagnetic field received thereby, the second electromagnetic field being characteristic of the data stored in said transponder, whereby said transceiver senses the second electromagnetic field as said transponder generates the second electromagnetic field, wherein said transponder is disposed in an end portion of said shaft;

(d) a conducting wire coupling said transceiver to a microprocessor included in the printer and adapted to process the data in the second electromagnetic field in order to control operation of the printer; and

(e) a device for positioning a selected one of the spools in proximity to the transceiver.

3. The printer of claim 2, wherein said transponder comprises an electrically erasable programmable read only memory semi-conductor chip.

4. The printer of claim 2, wherein said transceiver transmits the first electromagnetic field at a predetermined first radio frequency.

5. The printer of claim 4, wherein said transponder generates the second electromagnetic field at a predetermined second radio frequency.

6. A supply spool adapted to allow a printer to sense type of a media ribbon on the spool, comprising:

(a) a shaft having a supply of the media ribbon wound thereabout;

(b) a transponder unit disposed on the spool and responsive to a first electromagnetic field of a predetermined first radio frequency and for generating a second electromagnetic field of a predetermined second radio frequency wherein said transponder is disposed in an end portion of said shaft that is adapted to support the spool for alignment in the printer.

(c) an electrically erasable programmable read only memory semi-conductor device disposed on said spool and having encoded data stored therein indicative of the type of the media ribbon, said transponder capable of communicating with a transceiver spaced from the spool for receiving the first electromagnetic field to power said transponder and generating the second electromagnetic field as the transponder is powered, the second electromagnetic field being characteristic of the data stored in said memory device, whereby said transceiver unit may sense the second electromagnetic field as said transponder generates the second electromagnetic field.

7. A method of operating a printer to allow the printer to sense type of media on a supply spool, comprising the steps of:

(a) providing a transceiver for transmitting a first electromagnetic field and for sensing a second electromagnetic field;

(b) providing a plurality of spools, each spool having a transponder that is disposed in an end portion of the spool and covered by an end-cap that supports the spool for alignment in the printer, and each spool having a memory spaced-apart from the transceiver, the memory having data stored therein indicative of the type of the media, and moving each of the spools in turn to position a respective one of the spools in a position to have media material unwound therefrom for use in said printer so that the transponder of the respective one of the spools is positioned to be capable of receiving the first electromagnetic field and to power said memory, so that said transponder generates the second electromagnetic field in response to the first electromagnetic field received thereby, the second electromagnetic field being characteristic of the data stored in the memory; and

(c) coupling the transceiver and a microprocessor included in the printer, the microprocessor processing the data in the second electromagnetic field in order to control operation of the printer.

8. A method of operating a printer apparatus comprising:

supporting a plurality of media supply spools on a carousel, each supply spool having a different characteristic, each supply spool including a memory for storing data relative to the characteristic and a transponder, the transponder being disposed in an end portion of the spool;

providing a transceiver in the apparatus;

positioning a supply spool in proximity to the transceiver;

generating a first signal from the transceiver;

in response to the first signal, activating the transponder to generate second signals relative to the data stored in the memory of the supply spool that is in proximity to the transceiver, the first signal providing power for powering the transponder; and

in response to the second signals adjusting a printing operation in accordance with the data relative to that supply spool.

9. The method according to claim 8 and wherein the first and second signals are electromagnetic signals that are broadcast between the transceiver and transponder.

10. The method according to claim 8 and wherein the data stored in the memory of the supply spool relates to thickness of the media.

11. The method according to claim 7 and wherein the data stored in the memory of the supply spool relates to thickness of the media.

12. The method according to claim 7 and wherein the data stored in the memory of the supply spool includes information relative to the amount of material remaining on the spool.

13. The supply spool of claim 6 wherein the data includes information relative to when the spool was manufactured.

14. The supply spool of claim 6 wherein the media ribbon is formed of dye donor material.

15. The supply spool of claim 14 wherein the data includes information relative to the donor dye density of the dye donor material.

16. The supply spool of claim 15 wherein the data includes a count of how many pages of dye donor material are left on the spool.

17. The supply spool of claim 14 wherein the data includes a count of how many pages of dye donor material are left on the spool.

18. The supply spool of claim 17 wherein the data includes information relative to dye donor material thickness.

19. The supply spool of claim 14 wherein the data includes information relative to when the spool was manufactured.

20. The supply spool of claim 19 wherein the data includes a count of how many pages of media ribbon are left on the spool.

21. The supply spool of claim 6 wherein the data includes a count of how many pages of media ribbon are left on the spool.